

Exhibit O

INTERIM SLICE IMPLEMENTATION PROCEDURES – Updated 7/15/08

This Exhibit O shall be implemented only if, as of July 1, 2011, the Simulator fails the Simulator Performance Test as described in section 26.3.3 of this Agreement, and/or the SCA fails the SCA Functionality Test as described in section 5.12 of this Agreement. This exhibit shall be in effect no earlier than October 1, 2011 and shall remain in effect no longer than 90 days after the later of the Simulator Pass Date or the SCA Pass Date.

If this Exhibit O is implemented, any provisions of this Exhibit O that are in conflict with provisions of Exhibit N, Slice Operating Procedures, shall prevail over such provisions of Exhibit N.

To implement the provisions of this Exhibit O, BPA and «Customer Name» shall not utilize the Slice Computer Application as described in Exhibit M, but shall instead utilize the computer application developed and utilized to implement the Block and Slice Power Sales Agreements (Subscription Slice Agreements) that were in effect between October 1, 2001 and September 30, 2011. If «Customer Name» was not a party to such Subscription Slice Agreements «Customer Name» shall enlist the services of a BPA customer that was a party to such Subscription Slice Agreements, or its scheduling agent, in order to implement the provisions of this exhibit.

Drafter's Note: Do not modify the numbering convention of this exhibit or delete any provisions intentionally left blank. The numbering convention is consistent with the Subscription Block and Slice Agreement Exhibit J, and needs to remain as such to avoid confusion regarding provisions that BPA and Slice customers have utilized since 2001.

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1. DEFINITIONS

Terms with initial capitalization that are not defined in this Exhibit shall be as defined in the body of this Agreement. Generally, calculations associated with defined terms within this Exhibit are for the whole of the Slice System. Wherever a similar value is needed for «Customer Name»'s share of the Slice System values, the term “individual” is inserted before the defined term. Defined terms that contain the word “Generation” are for the Slice System as a whole. Defined terms that contain the word “Output” or are preceded by “individual” are customer-specific.

- 1(a) “Absolute Minimum Estimated Slice System Generation” means the least amount of energy the Slice System, as adjusted by System Obligations, can produce in a given time period.
- 1(b) “Actual Energy Slice Output (AESO)” means the energy portion of «Customer Name»'s Slice Output scheduled and delivered at the Point of Receipt for a day.
- 1(c) “Actual Net Slice System Generation (ANSSG)” means the sum of the ASSG in megawatt-hours (MWh) and the gross Elective Spill used in the calculation of net Elective Spill in section 7(g)(2) below, in MWh.
- 1(d) “Dispatchable Projects” means those projects that are available for redispatching with less advance notice than a calendar day, and include, but are not limited to, Grand Coulee, Chief Joseph, Lower Granite, Little Goose, Lower Monumental, Ice Harbor, McNary, John Day, The Dalles, and Bonneville.
- 1(e) “Estimated Slice System Generation (ESSG)” means the sum of the estimated generation produced at all the projects in the Slice System after adjustment for Operational Constraints and System Obligations over a given period of time.
- 1(f) “Fixed Flow” shall refer to an operational state when the maximum and minimum Daily Estimated Slice System Generation, as provided by BPA pursuant to section 9(a)(5), are the same, and which is the result of Operational Constraints that restrict the ability to utilize the capability of the Slice System to store or draft water on different days.
- 1(g) “Grace Margin” means the amount by which «Customer Name» may exceed its SSSB without incurring penalties.
- 1(h) “Grace Margin Spill Account (GMSA)” means the account which PS maintains that reflects the total amount of energy subtracted from the Slice purchasers' SSDAs each day as a result of the Slice purchasers accruing Slice Storage Account balances that exceed their individual upper SSSB limit and their individual Grace Margin.

- 1(i) “Non-Dispatchable Projects” means all of the Slice System projects that are not Dispatchable Projects.
- 1(j) “Pondage” means the ability of the hydro facilities of the Slice System to use lower river ponds (e.g., the LCOL and LSN) in combination with Grand Coulee and Chief Joseph throughout the CY to shift energy within the day and between days. Pondage includes Pondage Up and Pondage Down as described and calculated in section 3(c). Pondage Up may be used to exceed the daily maximum ESSG and/or the TOP HLH maximum ESSG. Pondage Down may be used to generate below the daily minimum ESSG.
- 1(k) “Ramp Rate” means the maximum rate of change in the level of generation for a specified period within all applicable Operational Constraints.
- 1(l) “Slice Output Limits” means all storage, energy, capacity, and rate of change limits defined in this Exhibit that limit the availability and use of Slice Output by «Customer Name».
- 1(m) “Slice Storage Account” means the quantity equal to the sum of «Customer Name»’s SSDA and the product of «Customer Name»’s Slice Percentage and the SSSE, expressed in megawatt-days (MW-days).
- 1(n) “Slice System Deviation Account (SSDA)” means the amount of energy, in MW-days, that «Customer Name»’s AESO deviates from the product of the ANSSG and «Customer Name»’s Slice Percentage, as described in section 7(d).
- 1(o) “Slice System Storage Bounds (SSSB)” means the maximum and minimum limits of the storage that is available to the Slice System, as calculated in section 3(b) below.
- 1(p) “Slice System Storage Energy (SSSE)” means the Storage Energy of the Slice System calculated by summing the Storage Energy in MW-days of certain Slice System projects, which shall include, but not be limited to Grand Coulee.
- 1(q) “Storage Energy” means the energy that would be produced if a reservoir released its entire Storage Content. Storage Energy amounts are determined by multiplying a reservoir’s Storage Content, expressed in thousands of second-foot-days (KSFD), by such reservoir’s at-site and downstream federal water-to-energy conversion factor (H/K).
- 1(r) “Technical Management Team” means that group comprised of representatives from federal and state (Oregon, Washington, Idaho, and Montana) agencies that is responsible for determining river operations in

accordance with the FCRPS biological opinion and other applicable operational requirements.

- 1(s) “TOP Heavy Load Hours” or “TOP HLH” means the hours ending 0700 through 2200 Pacific prevailing time (PPT) for each day of the week (including Sundays and holidays).
- 1(t) “TOP Light Load Hours” or “TOP LLH” means the hours ending 0100 through 0600 PPT and hours ending 2300 through 2400 PPT for each day of the week (including Sundays and holidays).
- 1(u) “Weekly Constraint” means an operation of the FCRPS that requires a specific flow requirement for the week, typically specified as a discharge from McNary Dam. During this operation, the weekend average flow requirement must be at least 80% of the previous 5-weekday average discharge.

2. **CALCULATION OF INDIVIDUAL LIMITS, ROUNDING, AND PENALTY CHARGES**

- 2(a) This section intentionally left blank
- 2(b) This section intentionally left blank
- 2(c) This section intentionally left blank
- 2(d) **Calculation of «Customer Name»’s Individual Limits**
Unless otherwise specified, the calculation of such individual values, in MW, MWh, or MW-days, shall be the product of such value for the Slice System and «Customer Name»’s Slice Percentage.
- 2(e) **Rounding of Calculations**
All values in this exhibit that are expressed in terms of megawatts shall be expressed in whole megawatts. To the extent that a calculation results in a value that is not an integer, the number shall be converted to an integer using the following method:
 - 2(e)(1) If the decimal is less than 0.50, round down to the nearest whole number.
 - 2(e)(2) If the decimal is equal to or greater than 0.50, round up to the nearest whole number.
- 2(f) This section intentionally left blank
- 2(g) This section intentionally left blank
- 2(h) **Penalty Charges**

If, after the day, it is determined that «Customer Name» has scheduled AESO in excess of «Customer Name»'s Slice Percentage of (1) the one-hour maximum ESSG, (2) the one-hour maximum ESSG for LSN, (3) the one-hour maximum ESSG for the rest of the system, (4) the TOP HLH maximum ESSG for LSN, (5) the TOP HLH maximum ESSG for the rest of the system (except as permitted in section 7(f) of this exhibit), (6) the daily maximum ESSG (except as permitted in section 7(f) of this exhibit) as adjusted by «Customer Name»'s right to Pondage, and/or (7) the Ramp Rate Up, all as calculated under the provisions of this Exhibit O, «Customer Name» may be charged at the Unauthorized Increase Rate for the amount of such exceedence.

If, after the day, it is determined that «Customer Name» has scheduled AESO in an amount less than «Customer Name»'s Slice Percentage of (1) the Absolute Minimum ESSG, (2) daily minimum ESSG as adjusted by «Customer Name»'s right to Pondage, and/or (3) the one-hour or two-hour Ramp Rate Down, all as calculated under the provisions of this Exhibit O (such amount to be designated as “generation shortfall”), «Customer Name»'s SSDA may be reduced by the generation shortfall. Such generation shortfall will be added to «Customer Name»'s AESO when computing «Customer Name»'s Pondage and SSDA balances for that day.

Penalties assessed by PS pursuant to this Exhibit O may be waived by PS in accordance with section 16(g) of the body of this Agreement.

3. CALCULATING THE SLICE SYSTEM STORAGE AND PONDAGE

The following procedures shall be used in determining all quantities related to SSSE, SSSB and Pondage values. The calculation of SSSE and SSSB set out below is a generic methodology, which is to be used in specific applications in this Exhibit.

3(a) Calculating the SSSE

PS shall calculate the SSSE, as defined in section 1(p), by summing the Storage Energy of the project(s) listed in section 1(p).

3(b) Calculating the SSSB

Prior to midnight on the 23rd day of each month, PS shall provide «Customer Name» with a forecast of the upper and lower SSSB for the subsequent three months. To determine the SSSB, PS shall calculate the SSSE associated with the upper and the lower ORC, except that whenever Grand Coulee's upper ORC is 1,290.0 feet (full pool), the upper SSSB shall reflect the Storage Energy associated with 1,289.7 feet. The upper and the lower SSSB shall be increased or decreased as appropriate to reflect available Pondage.

3(c) Calculating Pondage

To calculate the Pondage limits PS will reflect the estimated effective H/Ks, as adjusted for required Fish Spill, and shall assume the forebay elevations for the Simulator Projects are initialized for the day at two-thirds full within

their current operational storage ranges. Using these input values for the current day or next day(s), as appropriate, PS shall calculate the maximum amount that the LCOL Complex and LSN Complex projects can be utilized, relative to their expected operation, to increase the maximum daily ESSG and decrease the minimum daily ESSG by utilizing storage capabilities to store or draft water as appropriate. The resulting ability of the Federal System to increase maximum daily ESSG represents Pondage Up and the resulting ability of the Federal System to decrease minimum daily ESSG represents Pondage Down. Storing water at a particular project may increase or decrease overall Slice System generation, depending on the Operational Constraints in effect, and PS shall include such adjustment in the calculation of Pondage on an ongoing basis. Pondage Up limits shall be reported in positive values and Pondage Down limits shall be reported in negative values.

3(c)(1) During times when the Hanford Reach protection level flow is in effect, as established pursuant to the Hanford Reach Fall Chinook Protection Program Agreement, the Pondage Down limit will be increased (made more negative) on Saturdays, Sundays, and holidays as appropriate to reflect the right to reduce discharge from Grand Coulee and Chief Joseph to levels below such protection level flow.

3(c)(2) During Fixed Flow operations associated with Weekly Constraints at McNary Dam, as defined in section 1(u), Pondage Up will be modified to reflect the shaping and flexibility allowed between the weekdays and the weekends as follows:

For Monday-Friday: Increase Pondage Up by the product of $.303 * 24 * H/K_{GCL} * \text{weekly flow target}$

For Saturday: Increase Pondage Up by the product of $.75 * .303 * 24 * H/K_{GCL} * \text{weekly flow target}$

For Sunday: Increase Pondage Up by 0

Where:

H/K_{GCL} is the sum of the actual expected water-to-energy conversion factor for all Slice System projects from Grand Coulee to Bonneville Dam, taking into account the spill requirements at each of the projects, and the weekly McNary flow target, which is the flow requirement as determined by the Technical Management Team or through a Federal Operating Decision, in thousand second foot days (ksfd).

3(c)(3) During operations under Fixed Flow, «Customer Name»'s Pondage Up balance shall be increased and Pondage Down balance shall be decreased (made more negative) from time to time based on the change in «Customer Name»'s SSDA balance since the start of the Fixed Flow operation. Such adjustment shall be calculated each day as described below and shall be applicable on the 2nd day following such calculation, as follows:

Formula 1

UpAdj_I = Greater of 0 or [(SSDA_{I-2} – SSDA₀)*24 - (SSP * K)]

Formula 2

DownAdj_I = Lesser of 0 or [(SSDA_{I-2} – SSDA₀)*24 + (SSP * K)]

Where:

UpAdj_I is the amount of additional Pondage Up which «Customer Name» shall have a right to on day I.

DownAdj_I is the amount of additional Pondage Down which «Customer Name» shall have a right to utilize on day I.

SSDA_{I-2} is «Customer Name»'s SSDA on the day 2 calendar days prior to day I.

SSDA₀ is «Customer Name»'s SSDA on the last day prior to the start of Fixed Flow operation.

SSP is «Customer Name»'s Slice Percentage.

K is a constant equal to 50,000 MWh. 50,000 MWh was selected as a reasonable deadband for accumulated changes in SSDA and is subject to change upon the mutual agreement of BPA and «Customer Name».

4. FORECASTED SLICE OUTPUT CALCULATION, PS REAL-TIME ADJUSTMENTS, ELECTIVE SPILL DECLARATION, AND RAMP RATE CALCULATIONS

The following procedures shall be used in determining «Customer Name»'s minimum and maximum available Slice Output on a daily and hourly basis.

4(a) Calculating the ESSG

To determine the ESSG, PS shall calculate for each project in the Slice System such project's generation in terms of MW. When calculating the generation of such a project, PS shall estimate the energy that could be produced with those generating units that are planned to be available for such period while observing all applicable Operational Constraints. PS shall calculate the ESSG by adding the generation of all projects included in the Slice System and adjusting for any forecasted System Obligations.

4(b) Projects With a Fixed Operation

There are several Slice System projects whose operation is typically governed by non-power requirements and, as such, their operation will not typically be altered for power purposes. These projects are listed in Exhibit L under the headings including Independent Hydro Projects and Designated Non-Federally Owned Resources.

4(c) This section intentionally left blank

4(d) This section intentionally left blank

4(e) Calculating the Maximum and Minimum Daily ESSG

Beginning on September 30, 2011, and on each Business Day thereafter for as long as this exhibit is in effect, PS shall provide «Customer Name» with a forecast of the maximum and minimum ESSG for the total of all hours, the maximum ESSG for the total of the TOP HLHs, and the minimum ESSG for the total of the TOP LLHs of each day, for the upcoming preschedule day and the following six consecutive days.

In determining such maximum and minimum daily ESSG, PS shall perform two hydroregulation studies, one operating Coulee as needed to achieve the maximum flow constraint in effect, and one operating Coulee as needed to achieve the minimum flow constraint in effect. For such studies, PS shall initialize the starting reservoir Storage Contents to the previous day's actual elevations. PS shall incorporate forecasted probable regulated inflows for each project, forecasted unit outages, and all applicable Operational Constraints. For such studies, PS shall reflect the expected project operation of the LSN Complex, Hungry Horse, Libby, Dworshak and all non-federal projects. PS shall reflect a pass inflow operation of LCOL Complex to the extent allowed by such projects' Operational Constraints.

During periods of Fixed Flow operations, PS will compute the accumulated energy difference, in MWh, between each day's last official maximum and minimum daily ESSG, and that day's ANSSG with no adjustment for actual use of Pondage. On the first Business Day of each week, if the absolute value of the previous day's accumulated difference exceeds 15,000 MWh, PS will make an adjustment to the maximum and minimum daily ESSG values for the following day and each subsequent day through the following Sunday. Such daily adjustment shall be no greater than the accumulated deviation divided by the number of days over which the adjustment will be effective.

4(f) Calculating the Daily ESSG Assuming a Pass-Inflow Operation

Beginning on September 30, 2011, and on each Business Day thereafter as long as this exhibit is in effect, PS shall provide «Customer Name» with a forecast of the daily ESSG assuming a pass inflow operation for the upcoming preschedule day and the following six consecutive days. To calculate this value, PS shall determine the daily ESSG based on the expected operation of the Slice System as adjusted by the Storage Energy associated with the daily change in Storage Content expected to occur at the Dispatchable Projects. Parties agree that the foregoing study does not reflect then-current Federal Operating Decisions and Operational Constraints, and will not accurately reflect Slice Output actually available.

4(g) Calculating the Hourly Maximum ESSG

PS shall calculate the hourly maximum ESSG separately for the LSN Complex and for the rest of the Slice System. For such maximums, PS shall sum the maximum hourly generation of the Slice System projects in each of the two groups above. The maximum hourly generation for each project shall

be the lesser of the capability of the generating units that are available for service on that hour or the maximum generation allowed consistent with Operational Constraints.

PS shall also separately calculate for the LSN and for the rest of the Slice System, the maximum ESSG that can be produced over the TOP HLH in MWh, consistent with Operational Constraints. The LSN maximum generation for TOP HLH is that generation in excess of the minimum generation for the LSN on TOP HLH.

4(h) Calculating the Hourly Absolute Minimum ESSG

The hourly Absolute Minimum ESSG reflects the least amount of generation that the Slice System can produce in any hour, without causing Elective Spill. To determine the hourly Absolute Minimum ESSG, PS shall calculate the ESSG that would result from a minimum flow operation, while observing all Operational Constraints.

4(i) Adjustments By PS Duty Scheduler

On an hourly basis, the PS Duty Scheduler shall monitor the Slice System and communicate to «Customer Name» changes in the hourly and daily Slice Output Limits for the current day. Changes to the Slice Output Limits for the next day(s) may be communicated to «Customer Name» at a later time, but shall be communicated as soon as practicable. «Customer Name» shall make adjustments to its schedules to stay within such limits. No modifications to schedules that begin within 60 minutes from the notification by the PS Duty Scheduler of such adjustment will be necessary except as noted in section 13(f) below. The PS Duty Scheduler shall have the authority to make any such changes based on the conditions listed below.

4(i)(1) Corrections of Errors, Omissions, or Assumptions

PS's estimates of daily maximum ESSG, the hourly maximum ESSG, and Absolute Minimum ESSG may be adjusted in real-time by PS to reflect corrections of errors, omissions, or changes in the assumptions used to calculate the Slice System capability.

4(i)(2) Changes in Federal Operating Decisions

PS may adjust information and Slice Output Limits previously provided by PS to reflect new Federal Operating Decisions, the termination or suspension of a Federal Operating Decision already reflected in the estimates, or if PS determines that the Slice Output Limits do not accurately reflect the actual Slice System operation on the current day.

4(i)(3) Notification of Elective Spill

The PS Duty Scheduler shall notify «Customer Name» of Elective Spill for TOP HLH and/or TOP LLH as soon as practicable after PS determines that it is at risk of having Elective Spill. Such notice shall

include a revised TOP LLH Minimum ESSG, which will be updated to reflect operating conditions of the Slice System. If the System is declared to be in an Elective Spill condition for TOP HLH during periods of Fixed Flow operations, the PS Duty Scheduler may not declare the system to be out of Elective Spill condition unless such declaration is made prior to the start of the actual day for which the declaration was made; *provided, however*, during a period of Elective Spill in TOP HLH the Hourly Maximum generation pursuant to section 4(g) may be reduced if necessary to cause a reduction in system generation as directed by another Federal agency. Failure by BPA to notify «Customer Name» of Elective Spill conditions shall not protect «Customer Name» from Elective Spill allocation per section 7(g) below.

4(i)(4) Changes in the Hourly or Daily Slice System Capability

The PS Duty Scheduler shall revise the estimates of daily maximum ESSG, the hourly maximum ESSG, or Absolute Minimum ESSG when there is a change on the Slice System that exceeds either 500 MW on any remaining hour or 200 aMW for the remaining hours of the day.

4(j) Calculation of Maximum Ramp Rates

4(j)(1) Ramp Rate Up

The Ramp Rate Up equals:

$$\text{MRR} + \text{NDG}_N - \text{NDG}_{N-1}$$

Where:

MRR = the maximum rate of increase in generation for the Dispatchable Projects between 2 hours.

$\text{NDG}_N/\text{NDG}_{N-1}$ = The generation from the Non-Dispatchable Projects and the sum of the System Obligations for the schedule hour **N** and schedule hour **N-1**.

«Customer Name»'s increase in schedules between two hours shall be computed as

$$[\text{RG}_N - \text{RG}_{N-1}]$$

Where:

$\text{RG}_N/\text{RG}_{N-1}$ = The lesser of the System Hourly Maximum times the SSP, or the requested Genfor schedule hour **N** and schedule hour **N-1**.

If «Customer Name» submits schedules such that the increase calculated in accordance with the immediately preceding formula exceeds the product of «Customer Name»'s Slice Percentage and the Ramp Rate Up, such exceedence will be subject to the UAI, and such

exceedence amount will be subtracted from «Customer Name»'s daily AESO for purposes of computing the daily Pondage and SSDA balances.

4(j)(2) Ramp Rate Down

Ramp Rate Down is the maximum rate of decrease in generation for the Dispatchable Projects over any three consecutive schedule hours. The Ramp Rate Down limit is calculated as both a limit to the amount of decrease in generation over any two consecutive hours and the decrease in generation over any three consecutive schedule hours.

One-Hour Test

The Ramp Rate Down limit between two consecutive hours, N-1 and N is the greater of:

- 4(j)(2)(i) $C * SSP$, or
4(j)(2)(ii) $B * (RG_{N-1} - HM_N)$

Two-Hour Test

The Ramp Rate Down limit between two hours, N-2 and N is the sum of:

- 4(j)(2)(i) The greater of $[(SSP * C) \text{ or } (A * (RG_{N-2} - HM_{N-1}))]$, and
4(j)(2)(ii) The greater of $\{(SSP * C) \text{ or } A * (RG_{N-2} - \text{the greater of } [(SSP * C) \text{ or } (A * (RG_{N-2} - HM_{N-1}) - HM_N)])\}$

In no event shall the results of the Two-Hour Test cause a limit that would be less than $C * SSP$ for any two consecutive hours.

Where:

A = 0.4

B = 0.5

C = The minimum hourly down ramp limit for the Slice System, set for 1,000 megawatts on all hours

SSP = «Customer Name»'s Slice Percentage

RG_N/RG_{N-2} = The greater of the Absolute Minimum ESSG times the SSP for hour N, or the requested Gen (other than for ancillary services) for schedule hour N and schedule hour N-2

HM_N/HM_{N-2} = Absolute Minimum ESSG for schedule hour N and schedule hour N-2, multiplied by «Customer Name»'s Slice Percentage.

The following formula shall be used to determine «Customer Name»'s actual ramp down across any two hours:

$$[(RG_N - SSP * (NDG_N + SO_N)) - (RG_{N-x} - SSP * (NDG_{N-x} + SO_{N-x}))]$$

Where:

RGN-X = The greater of the Absolute Minimum ESSG times the SSP, or the scheduled generation for the schedule hour **X** hours prior to hour **N**

SSP = «Customer Name»'s Slice Percentage

NDGN-X = The Slice System generation from the Non-Dispatchable Projects for the schedule hour **X** hours prior to hour **N**

SON-X = The System Obligations for the schedule hour **X** hours prior to hour **N**

X shall be set to the value one (1) for calculating «Customer Name»'s schedule decrease for the 1-hour Ramp Rate Down test and shall be set to the value two (2) for the 2-hour Ramp Rate Down test.

If «Customer Name» submits a schedule which results in the delivery of energy such that the decrease calculated in accordance with the preceding paragraph exceeds the Ramp Rate Down limit as determined for either the 1-hour test or 2-hour test as specified above, such exceedence will be subject to transfer from «Customer Name»'s SSDA, consistent with the provisions of Section 2(h) of this Exhibit O. In the event that an exceedence of both the 1-hour test and 2-hour test occurs across the same delivery hour, the greater of the two amounts shall be so transferred, and such exceedence amount will be added to «Customer Name»'s daily AESO for purposes of computing the daily Pondage and SSDA balances.

4(k) This section intentionally left blank.

5. CALCULATING ACTUAL SLICE OUTPUT

The following procedures shall be used in determining the actual quantities of Slice Output.

5(a) Calculation of Actual SSSE and Slice Storage Account Balance

Beginning October 2, 2011, and on each day thereafter as long as this exhibit is in effect, PS shall calculate and provide «Customer Name» with the SSSE and «Customer Name»'s Slice Storage Account balance for the previous day, as measured in MW-days. PS shall calculate such SSSE based on the actual reservoir Storage Contents, as measured at midnight for the previous day. To determine «Customer Name»'s Slice Storage Account balance, PS shall sum the product of the SSSE and «Customer Name»'s Slice Percentage with «Customer Name»'s Slice Storage Deviation Account (SSDA) balance as of midnight the same day, as determined in section 7(d) below.

5(b) Calculation of ANSSG and AESO

Beginning October 1, 2001, and on each day thereafter as long as this exhibit is in effect, PS shall calculate and provide «Customer Name» with a daily

accounting of the ANSSG produced on the previous day, as measured in MWh. PS shall calculate such ANSSG in the same manner as the ESSG but using: (1) actual project generation instead of forecasted generation, and (2) actual System Obligations instead of forecasted System Obligations, as adjusted by (3) the gross Elective Spill pursuant to section 7(g) below.

To determine «Customer Name»'s daily individual AESO, PS shall sum for each hour of the day, the greater of «Customer Name»'s scheduled Slice Output energy and «Customer Name»'s individual Absolute Minimum ESSG. In the event that «Customer Name»'s daily individual AESO is less than the minimum individual Slice Output Limit for such day, as adjusted by «Customer Name»'s available Pond Down, «Customer Name»'s daily individual AESO shall be deemed to be equal to the minimum individual Slice Output Limit for such day, as adjusted by «Customer Name»'s available Pond Down. The difference between «Customer Name»'s daily individual AESO and the sum of «Customer Name»'s scheduled Slice Output energy for all hours of such day shall be forfeited and transferred from «Customer Name»'s SSDA.

6. GRACE MARGIN

6(a) General

It is anticipated that «Customer Name»'s Slice Storage Account balance may not always be within its individual SSSB. Such deviation could be due to potential forecast or accounting errors on PS's part or errors on «Customer Name»'s part. A Grace Margin will be provided to mitigate any penalty. The Grace Margin is both added to the maximum storage bounds and subtracted from the minimum storage bounds. The Grace Margin is applied on an after-the-fact basis only. If the Slice System is in Fixed Flow, the UAI penalty will not be applied for being below the minimum storage bounds, nor will the forfeiture of energy for being above the maximum storage bounds be applied, as set forth in section 6(e) below. It is recognized that unusual events may require «Customer Name» and PS to institute by mutual oral or written agreement special actions with regard to the Grace Margin.

If, as of the last day of Fixed Flow, when the Slice System is transitioning to a period of operating within maximum and minimum storage bounds, «Customer Name»'s SSA balance exceeds its individual SSSB, «Customer Name» shall have up to 7 days (or longer if allowed in section 6(e) below) beginning on the day that such transition was commenced to bring their SSA balance within its individual SSSB by utilizing the procedure described in section 6(e) below without penalty or charge. If, within such 7-day period, «Customer Name» brings their SSA balance within their individual SSSB, the provisions described in section 6(e) shall become effective beginning on the day such compliance was achieved. If, within or by the end of such 7-day period, «Customer Name» fails to bring their SSA balance within their individual SSSB, «Customer Name» shall be subject to the penalties

described in this section 6 for any amount their SSA balance remains outside the SSSB at the end of such 7-day period (or longer period if allowed in section 6(e)).

6(b) Calculation of Grace Margin

To determine «Customer Name»'s Grace Margin, PS shall calculate the greater of:

6(b)(1) The product of 17,300 MWh and «Customer Name»'s Slice Percentage,
or

6(b)(2) The ESSG Pass-Inflow Forecast error on that day times «Customer Name»'s Slice Percentage.

6(c) Calculation of SSSB Exceedence

PS shall determine the exceedence of «Customer Name»'s Slice Storage Account relative to «Customer Name»'s individual SSSB, by using Formula 3 below. PS shall also determine the quantity of «Customer Name»'s SSDA that is subject to forfeiture and transfer out of their SSA, if any, using Formula 4 below, and the quantity of Unauthorized Increase, if any, by using Formula 5 below.

Formula 3

$$E = (\text{Greater of } 0 \text{ or } (SSSE_I - uSSSB)) + (\text{Lesser of } 0 \text{ or } (SSSE_I - lSSSB))$$

Where:

E is the amount by which «Customer Name»'s SSSE exceeds the Slice System Storage Bounds in MW-days.

SSSE_I is «Customer Name»'s Slice Storage Account balance as measured in MW-days.

uSSSB is «Customer Name»'s individual upper Slice System Storage Bound as measured in MW-days.

lSSSB is «Customer Name»'s individual lower Slice System Storage Bound as measured in MW-days.

Formula 4

$$gmSPILL = \text{Greater of } \{0, \text{ or the Lesser of } [(0.99 * D_{maxGen} - AESO/24), \text{ or } (E - GM_I)]\}$$

Where:

E is «Customer Name»'s exceedence calculated in Formula 3 above in MW-days.

gmSPILL is the amount of «Customer Name»'s exceedence that is considered to be spilled as measured in MW-days.

GM_I is «Customer Name»'s individual Grace Margin as measured in MW-days.

DmaxGen is the maximum daily ESSG multiplied by «Customer Name»'s Slice Percentage as measured in MW-days.

Formula 5

gmUAI = Absolute value of {Lesser of {0, or the Greater of [(AESO/24 – 1.01*DminGen), or (E + GM_I)]}

Where:

E is «Customer Name»'s exceedence calculated in Formula 3 above in MW-days.

gmUAI is the amount of «Customer Name»'s exceedence, measured in MW-days, that is considered to be subject to the UAI.

GM_I is «Customer Name»'s individual Grace Margin as measured in MW-days.

DminGen is the minimum daily ESSG multiplied by «Customer Name»'s Slice Percentage as measured in MW-days.

Formula 6

[This formula has been intentionally left blank]

6(d) Grace Margin Spill Account (GMSA)

PS shall establish a GMSA that shall be initialized each day to zero and maintained in MW-days. PS shall calculate the GMSA pursuant to section 6(e)(3) below and shall utilize the GMSA to calculate net Elective Spill pursuant to section 7(g)(2) below.

6(e) Application of The Grace Margin

Any time that gmSpill and gmUAI as calculated in Formulae 4 and 5 above are greater than zero, the gmSpill or gmUAI must be eliminated by «Customer Name». «Customer Name» shall take the action(s) described below to return their Slice Storage Account balance to a condition that is within their Grace Margin to avoid the penalties below. If «Customer Name»'s exceedence as calculated in Formula 3 above is greater than zero at a time when Grand Coulee's ORC is 1,290.0 feet, then «Customer Name» shall take the actions specified in section 6(e)(2) below by the day following the day on which «Customer Name» is notified of such exceedence. In all other instances where «Customer Name»'s exceedence as calculated in Formula 3 above is not zero, «Customer Name» shall take such actions by the third day following the day of notification. The day of notification shall be the day «Customer Name» receives the ANSSG that applies to the day on which the exceedence occurs.

6(e)(1) This section intentionally left blank.

6(e)(2) «Customer Name» shall adjust its AESO in compliance with one of the following two requirements:

6(e)(2)(A) «Customer Name»'s exceedence as calculated in Formulae 4 and 5 shall be reduced to zero; or

6(e)(2)(B) If Slice Output Limits prevent «Customer Name» from making such adjustment, then «Customer Name» shall continue to schedule its Slice Output within 1 percent below the daily maximum or 1 percent above the daily minimum Slice Output Limit, without being required to utilize Pondage, for as many days as necessary to eliminate such exceedence.

If «Customer Name» fails to schedule its AESO or make a SSDA transfer as specified in section 6(e)(2), such exceedence, if positive, will be treated as gmSPILL pursuant to section 6(e)(3) below; if negative, such amount shall be treated as gmUAI pursuant to section 6(e)(4) below.

«Customer Name» may elect to schedule its AESO in a manner to reduce the exceedence amount to zero prior to the day following the day of notification, or the third day following the day of notification, as described in section 6(e) above. If «Customer Name» does so, «Customer Name» shall not be required to adjust its AESO as specified in this section 6(e)(2).

6(e)(3) Applied gmSpill and the Grace Margin Spill Account

PS shall decrease «Customer Name»'s SSDA by the amount of gmSPILL calculated in Formula 4 above that is applied pursuant to sections 6(e), and 6(e)(2) herein. In addition, PS shall add such amounts to the GMSA, which shall represent the sum of all Slice purchasers' applied gmSPILL for each day.

6(e)(4) Unauthorized Increase Charge for Applied gmUAI

PS shall charge «Customer Name» for the amount of gmUAI calculated in Formula 5 above that is applied pursuant to sections 6(e), and 6(e)(2) herein at the UAI charge. In addition, PS shall increase «Customer Name»'s SSDA by the amount of gmUAI for which such a charge is assessed.

7. SLICE PARTICIPANT'S DAILY SLICE STORAGE DEVIATION ACCOUNT (SSDA) BALANCE, ALLOCATION OF ELECTIVE SPILL, AND PONDAGE ACCOUNT BALANCE

PS shall establish and maintain an accounting of the daily SSSE based upon the Slice System reservoirs' actual Storage Contents (actual SSSE). PS shall establish and maintain an accounting the daily deviation of Slice Storage (SSDA) for «Customer Name» as specified below. PS shall measure or calculate such account balances in MW-days as of midnight each day. For purposes of section 6 and this section 7, the SSDA shall only be computed as a daily storage balance and shall not

be computed as an hourly estimate of «Customer Name»'s SSDA balances. «Customer Name» shall utilize its SSDA as an indicator of its proximity to its individual SSSB and shall adjust its request of Slice Output as needed stay within such storage bounds. If «Customer Name»'s Slice Storage Account balance is outside of its individual SSSB, the Grace Margin rules in section 6 above shall apply.

7(a) This section intentionally left blank.

7(b) **Initial Balances**

PS shall initialize the September 30, 2011, actual SSSE to the SSSE associated with the actual elevations of the projects in the Slice System as of 2400 hours PPT on September 30, 2011. PS shall initialize «Customer Name»'s September 30, 2011, SSDA balance to zero.

7(c) This section intentionally left blank.

7(d) **Daily Calculation of the SSDA Balance**

Beginning October 2, 2011, and on each day thereafter as long as this exhibit is in effect, PS shall calculate and provide «Customer Name» with daily account balances of «Customer Name»'s dSSDA and SSDA for the previous day using Formulae 7 and 8 below.

Formula 7

$$\text{SSDA}_{-1} = \text{SSDA}_{-2} + \text{dSSDA}_{-1} - \text{eSPILL}_I$$

Where:

SSDA₋₁ is the SSDA for day –1 as measured in MW-days.

SSDA₋₂ is the SSDA for day –2 as measured in MW-days.

dSSDA₋₁ is the change in the SSDA for day –1 calculated in Formula 8 below, in MW-days.

eSPILL_I is «Customer Name»'s allocated share of the net Elective Spill for the Slice System calculated in Formula 13 below, expressed in MW-days.

Formula 8

$$\text{dSSDA}_{-1} = [(\text{SSP} * \text{ANSSG}_{-1}) - \text{AESO}_{-1} + \text{iTSSDA}_{-1}] / 24$$

Where:

dSSDA₋₁ is the change in the SSDA for day –1 as measured in MW-days.

SSP is the Slice Percentage.

ANSSG₋₁ is the ASSG for day –1 as measured in MWh.

AESO₋₁ is «Customer Name»'s individual AESO for day –1 as measured in MWh.

iTSSDA₋₁ is the adjustment to «Customer Name»'s SSDA for day –1 as determined pursuant to section 8, measured in MWh.

7(e) **Termination of the Interim Operating Procedures and Slice Participant's SSDA Balance**

Any balance remaining in «Customer Name»'s SSDA on the date these Interim Operating Procedures are terminated and Exhibit M is implemented shall be transferred to «Customer Name»'s BOSS Deviation Account as the initial balance.

7(f) Procedures During Fixed Flow and Declared Elective Spill Condition for TOP HLH

The procedures outlined in this subsection 7(f) shall be used when the Slice System is in a Fixed Flow state and Elective Spill is declared for TOP HLH.

7(f)(1) Pondage Balance Calculation

The daily change in «Customer Name»'s Pondage Account balance, calculated pursuant to section 7(h), shall be zero regardless of the difference between «Customer Name»'s generation schedule compared to their Slice Percentage of the daily maximum ESSG and daily minimum ESSG.

7(f)(2) dSSDA Calculation

The dSSDA as defined in section 7(d) of this exhibit shall be set to zero for each such calendar day.

7(f)(3) Allocation of Expenses Associated with Elective Spill

Expenses incurred by PS due to the delivery of Elective Spill energy will be allocated to «Customer Name» by multiplying the amount of such expenses incurred by PS on such day by «Customer Name»'s Slice Percentage.

7(f)(4) Daily Maximum ESSG

The customer will have the right to exceed its share of daily maximum ESSG, as adjusted by «Customer Name»'s available Pond Up.

7(f)(5) TOP HLH Maximum ESSG for the Rest of the System

The customer will have the right to exceed its share of the TOP HLH maximum ESSG for the rest of the system, as adjusted by «Customer Name»'s available Pondage Up.

7(f)(6) One-Hour Maximum ESSG

The customer will NOT have the right to exceed its share of the one-hour maximum ESSG.

7(g) Procedures Due to Elective Spill in Other Conditions

The procedures outlined in this subsection 7(g) shall be used to calculate and allocate actual amounts of Elective Spill that occur when the Slice System is not in a Fixed Flow state or when the Slice System is in a Fixed Flow state and Elective Spill is declared only for TOP LLH.

7(g)(1) General

PS may need to reduce the actual Elective Spill by delivering energy as Immediate Spill energy or by paying other parties to take energy that would otherwise be implemented as Elective Spill. PS shall increase the Elective Spill quantity by the amount of energy delivered under either of such arrangements, which total shall be known as the gross Elective Spill.

7(g)(2) Calculation of Net Elective Spill

The quantity of Elective Spill that occurs on the Slice System on any given day shall be reduced by the quantity in the GMSA to determine net Elective Spill for that day. PS shall use Formula 9 below to calculate the net Elective Spill for the Slice System.

Formula 9

$$\mathbf{eSPILL_{NET} = Greater\ of\ 0\ or\ (eSPILL_{GROSS} - GMSA - HourlySpill)}$$

Where:

eSPILL_{NET} is the net Elective Spill for the Slice System to be allocated to the Slice Purchasers in MW-days.

eSPILL_{GROSS} is the gross Elective Spill for the Slice System in MW-days.

GMSA is the sum of all Slice purchaser's applied gmSpill as calculated in section 6(e)(3) above in MW-days.

HourlySpill is the total amount of energy transferred from all Slice customers SSDAs pursuant to the second paragraph of section 2(h).

7(g)(3) Allocation of Net Elective Spill

As needed, PS shall calculate for «Customer Name», all other Slice Purchasers, and PS, the net Elective Spill to be allocated to each Party, using Formulae 10, 11, and 12 below. When requested, PS shall make available to «Customer Name» the calculations and all data necessary to verify the calculation of the allocated net Elective Spill.

Formula 10

$$\mathbf{llhMINGEN = (llhASSG_{ADO} + eSPILL_{NET} * 24) / TOP\ LLH}$$

Where:

llhMINGEN is the minimum TOP LLH Slice System generation needed to avoid Elective Spill for the day, expressed in average MW.

llhASSG_{ADO} is the portion of the daily ASSG that was generated on TOP LLH, less the quantity of energy delivered as Immediate Spill Deliveries, and the energy for which PS paid other parties to take during such TOP LLH, expressed in MWh.

eSPILL_{NET} is the net Elective Spill for the Slice System, to be allocated to the Slice Purchasers, as calculated in Formula 9 above and expressed in MW-days.

TOP LLH is the number of TOP LLH in the day.

Formula 11

llhADDGEN_I = the greater of
((llhMINGEN * SSP) - llhAESOI/TOP LLH) or 0

Where:

llhADDGEN_I is «Customer Name»'s additional individual AESO that was needed on TOP LLH to avoid Elective Spill for the day, as expressed in average MW.

llhMINGEN is the minimum TOP LLH Slice System Generation needed to avoid Elective Spill for the day, calculated in Formula 10 above, expressed in average MW.

SSP is «Customer Name»'s Slice Percentage.

llhAESOI is the portion of «Customer Name»'s daily individual AESO that was scheduled on TOP LLH, plus the energy associated with hourly spill penalties that occur on TOP LLH, as expressed in MWh.

TOP LLH is the number of TOP LLH in the day.

Formula 12

eSPILL_I = **eSPILL_{NET}** * **llhADDGEN_I / llhADDGEN_{TOT}**

Where:

eSPILL_I is «Customer Name»'s allocated share of the net Elective Spill for the Slice System, expressed in MW-days.

eSPILL_{NET} is the net Elective Spill for the Slice System to be allocated to the Slice Purchasers, as determined in Formula 9 above, expressed in MW-days.

llhADDGEN_I is «Customer Name»'s minimum TOP LLH Slice System Generation needed to avoid Elective Spill for the day, as determined in Formula 11 above, expressed in average MW.

llhADDGEN_{TOT} is the minimum TOP LLH Slice System Generation needed to avoid Elective Spill for the day, as determined in Formula 11 above, summed for all Slice Purchasers, and expressed in average MW.

7(h) Pondage Account and Daily/Weekly Use of Pondage

PS shall establish and maintain daily accounting of the Pondage limits on the Slice System, calculated pursuant to Section 3(c) of this Exhibit.

PS shall also establish and maintain an accounting of the daily use of Pondage for «Customer Name» as specified below. PS shall measure or

calculate such account balances in whole megawatt-hours (MWh) as of midnight each day.

7(h)(1) «Customer Name»'s Pondage account will be calculated in daily energy quantities and shall be cumulative, with a negative balance indicating use of Pondage Up and a positive balance indicating use of Pondage Down. The account balance will be changed each day by sum of the following items:

7(h)(1)(A) The energy amount by which «Customer Name»'s AESO exceeds the daily maximum ESSG shall be subtracted from «Customer Name»'s Pondage account balance and the amount by which the AESO is lower than the daily minimum ESSG shall be added to «Customer Name»'s Pondage account balance.

7(h)(1)(B) If «Customer Name»'s Pondage account balance for the prior day is positive, the account balance shall be decreased by the lesser of (i) the amount of the Pondage account balance for the prior day, or (ii) the amount that «Customer Name»'s AESO is greater than the daily minimum ESSG, limited by the daily maximum ESSG.

7(h)(1)(C) If «Customer Name»'s Pondage account balance for the prior day is negative, the account balance shall be increased by the lesser of (i) the amount of the Pondage account balance for the prior day, or (ii) the amount that «Customer Name»'s AESO is lower than the daily maximum ESSG limited by the daily minimum ESSG.

7(h)(1)(D) If «Customer Name» has specified amounts in addition to those calculated automatically by PS for the Pondage account balance to be used for Pondage operations, including taking and returning of energy from the Pondage account, then PS shall include such amounts in the calculation.

7(h)(2) If «Customer Name» schedules AESO such that their Pondage account balance does not exceed, in a positive amount, their Slice Percentage times the Pondage Down limit (note: a negative number), and does not exceed in a negative amount, their Slice Percentage times the Pondage Up limit (note: a positive number), no penalty for Pondage shall be applied. If «Customer Name»'s Pondage account balance exceeds either limit, the energy amount in excess of the limit will be assessed as gmSpill or gmUAI as appropriate, *provided however*, that if the Pondage limits become smaller, «Customer Name» shall not be obligated to reduce the balance in order to comply with the limit and

shall not be assessed gmSpill or gmUAI for that amount. However, any subsequent increases in «Customer Name»'s Pondage account balance while their balance exceeds the reduced limit will be subject to gmSpill or gmUAI as appropriate.

7(h)(3) During periods when protection level flows are in effect at Priest Rapids dam pursuant to the Hanford Reach Fall Chinook Protection Program Agreement, «Customer Name» shall schedule AESO such that «Customer Name»'s Pondage account balance is within their share of the Pondage Down limit by midnight of each Wednesday.

7(i) **This section intentionally left blank**

8. THIS SECTION INTENTIONALLY LEFT BLANK

9. DATA AND INFORMATION PROVIDED BY PS

9(a) **Slice System Estimates Provided Each Business Day By PS**

PS shall provide to «Customer Name» no later than 1630 hours PPT on each Business Day the estimates specified in sections 9(a)(1) through 9(a)(13) for the day or days for which preschedules shall be established on the next Business Day. All estimates will be provided net of expected Operational Constraints and in MWh except where noted. PS does not guarantee or assume any particular or specific result from use by «Customer Name» of these estimates and any of the information provided.

9(a)(1) **One-Hour Maximum ESSG**

This estimate represents the maximum Slice System Generation that can be produced for 1 hour. The ESSG shall be separated into the following two categories:

9(a)(1)(A) the LSN maximum generation for an hour that is in excess of the hourly minimum generation for the LSN for such hour; and

9(a)(1)(B) the rest of the Slice System.

9(a)(2) **TOP HLH Maximum ESSG**

This estimate represents the portion of the maximum ESSG that can be produced over the TOP HLH for:

9(a)(1)(A) the LSN, and

9(a)(1)(B) the rest of the Slice System.

9(a)(3) **Absolute Minimum ESSG**

This estimate reflects the Absolute Minimum ESSG that can be produced during any hour without causing Elective Spill.

9(a)(4) TOP LLH Minimum ESSG

This estimate is the amount of Slice System Generation that needs to be produced over the TOP LLH to minimize the potential of Elective Spill given expected system conditions. This estimate is not a limit, and there is also no guarantee or assurance by PS that in providing this estimate, a Slice Output request at that level will not incur some amount of Elective Spill.

9(a)(5) Daily Maximum and Minimum ESSG

This estimate represents the maximum and minimum amount of Slice System Generation that can be produced for the day, without utilizing available Pondage.

9(a)(6) Fixed Project Generation Schedules

This estimate represents the hourly expected generation from the projects described in section 4(b) above.

9(a)(7) Maximum Hourly Ramp Rates

The estimate for the maximum hourly Ramp Rates, in MW, for increasing and decreasing Slice System Generation will be calculated using the methodology in section 4(j).

9(a)(8) Maximum and Minimum Storage Bounds

This estimate will provide the SSSB in MW-days for the preschedule day and the following 6 days.

9(a)(9) ESSG Pass-Inflow Forecast

This is the theoretical ESSG, assuming a modified inflow operation, as discussed in section 4(f) above. This will provide «Customer Name» with an estimated amount of Slice Output to schedule in order to maintain their SSA balance from day to day.

9(a)(10) Planned Unit Outages

Under normal operating conditions, this will include planned unit outages of at least 500 MW for all Slice System projects for the next preschedule day and the following 6 days and will be provided during the daily conference call described in section 9(d). PS will provide more detailed planned unit outage information during times of severe weather events or regional power shortages. The outage information provided will be in terms of megawatts of capacity out of service for the Slice System.

9(a)(11) Six-Day TOP HLH and TOP LLH Maximum and Minimum Generation

This estimate will include a forecast of the maximum and minimum Forecasted Slice System Generation expected to occur on TOP LLH and on TOP HLH, given unit availability and Operational Constraints for the 6 days after the day to be prescheduled.

9(a)(12) Pondage Up and Pondage Down Available on the Slice System

This estimate shall represent the cumulative amount of Pondage Up and Pondage Down available on the Slice System for the next preschedule day.

9(a)(13) State of the Slice System

PS shall provide to «Customer Name» an indication of the expected state of the Slice System for the preschedule day(s). Such indication shall be that the Slice System is in a storage energy state unless there is a specific weekly or daily flow requirement on one of the LCOL projects, or the difference between the uSSSB and the lSSSB would be approximately the same as the potential size of the inflow forecast error. PS and «Customer Name» shall review and evaluate the selection of the system state with the operations subcommittee throughout the Operating Year on a case-by-case basis in order to coordinate and plan the timing and transition between Slice System states.

If PS declares that the Slice System is operating in a Fixed Flow state, and emergency provisions are enacted through the Northwest Power Pool Emergency Response Team (“NWPP ERT”), the Slice System will transition from a Fixed Flow state to an interim storage energy state. During the period that the NWPP ERT declares an emergency, there will be no assessment by PS for gmSpill or gmUAI. The maximum daily ESSG will be determined using the increased right to generation on the system, while the minimum daily ESSG will continue to reflect the system minimum discharge requirements.

Upon suspension of emergency provisions enacted by the NWPP ERT and as appropriate, the Slice System will return to the Fixed Flow state, with the maximum daily ESSG and the minimum daily ESSG set at the same value each day. For purposes of Section 3(c)(3) of Exhibit O, the SSDA balance as the last day of the interim storage energy state will be the SSDA₀ that «Customer Name» may use to adjust their Pondage rights for the duration of the subsequent Fixed Flow period.

PS shall also declare whether there is an expectation of Elective Spill during TOP LLH and/or Elective Spill during TOP HLH.

9(b) Operational Constraints

PS shall provide to «Customer Name» changes to current Operational Constraints and the imposition of new Operational Constraints, as they become known to PS, which could impact the current and future generating capability of the Slice System. The Operational Constraints may be listed in terms of discharge, energy, or any other unit that is appropriate to convey the constraint.

9(c) Slice System Actual Information Provided By PS

PS shall provide «Customer Name» with the following information at the times specified. In the event that actual information is not available, PS shall substitute its best available estimate of such information for such missing data and indicate to «Customer Name» that the data is based on best available information. «Customer Name» shall accept such estimates and the risk of reliance upon such estimates:

9(c)(1) SSSE, SSDA, and the Grand Coulee elevation as of midnight the previous day, as well as the ANSSG for the previous day, assuming no Elective Spill for such calculations, by 0800 hours PPT each day, and

9(c)(2) «Customer Name»'s allocation of Elective Spill, by 1200 hours PPT each Business Day.

9(d) This section intentionally left blank

9(e) This section intentionally left blank

10. WEEKLY CONSTRAINTS

10(a) General

Some Operational Constraints are expressed in terms of Weekly Constraints. If a Weekly Constraint is in effect, PS shall provide «Customer Name» with information pursuant to this subsection. To the extent that PS is provided with an error margin for the Weekly Constraint with regard to any Operational Constraints, either before or after the fact, «Customer Name» will be entitled to its Slice Percentage share of such error margin in any computation or accounting in this Exhibit O.

10(b) Real-Time Changes

If the nature and/or duration of the flow requirements associated with the Weekly Constraints described above change, PS shall provide «Customer Name» with the necessary data for operating, consistent with such revised Weekly Constraints. PS shall provide to «Customer Name» such data necessary to calculate the operational limits applicable to «Customer Name». «Customer Name» shall adjust its operation for the remainder of the week to conform to the revised Weekly Constraint.

11. THIS SECTION INTENTIONALLY LEFT BLANK

12. THIS SECTION INTENTIONALLY LEFT BLANK

13. SCHEDULING REQUIREMENTS

«Customer Name» shall schedule its Slice Output in accordance with the following:

13(a) Preschedule Times

«Customer Name» shall submit hourly preschedules through the next Preschedule Day to PS consistent with PS's prescheduling timeframe, which currently closes at 1100 hours PPT. This preschedule shall be in hourly values and in whole MW. Schedules submitted after the PS prescheduling timeframe will be accepted on a best efforts basis up to the time that the preschedule checkout process has been completed for that preschedule day by PS.

13(b) Estimates of Energy Schedules

If requested by PS, «Customer Name» shall also provide an estimate of the energy they will schedule for the 6 consecutive days following the prescheduled day. Such estimate shall be provided for each day in terms of average TOP HLH and average TOP LLH values for total energy. «Customer Name» and the other Slice Purchasers may provide to PS aggregated estimates of TOP HLH and TOP LLH energy schedules for the next 6 days to satisfy such request. The estimates are provided for information only.

13(c) Scheduling Energy by Resource Groups

«Customer Name» shall separately distribute its request for energy between the LSN and the rest of the Slice System. «Customer Name»'s request for hourly energy from each resource group shall observe the limits for hourly maximum generation, maximum generation over the TOP HLH, and the hourly rate of change for such resource groups. Such hourly values will then be combined to be «Customer Name»'s request for hourly energy.

13(d) Preschedule Limits

Preschedules submitted by «Customer Name» shall comply with all applicable requirements as set forth in this Exhibit O.

13(e) Real-Time Changes

«Customer Name» shall have the right to adjust its preschedule for any reason up to 30 minutes prior to the delivery hour to the extent such adjusted amount is within the applicable Ramp Rates and Hourly Maximum as established by this exhibit. «Customer Name» shall communicate such preschedule adjustment to the PS Duty Scheduler.

13(e)(1) This section intentionally left blank.

13(e)(2) This section intentionally left blank.

13(e)(3) This section intentionally left blank.

13(f) Limits on Real-time Changes that are Less Than 30 Minutes Before the Hour

The PS Slice Scheduler shall have the sole discretion to accept or deny «Customer Name»'s requests to adjust preschedule quantities less than 30 minutes prior to the start of each delivery hour. Changes required by the BA for reliability purposes that occur less than 30 minutes prior to the start of each delivery hour shall be accommodated by BPA and «Customer Name» at the time such requests are made.

13(g) This section intentionally left blank

13(h) This section intentionally left blank

13(i) This section intentionally left blank

14. REVISIONS AND AD-HOC OPERATIONAL DECISIONS

Revisions to this exhibit and/or ad-hoc operational decisions shall be implemented by BPA after discussion among the Slice Implementation Group, as described in section 5.14.2 of this Agreement.